

# **Part One: Background and Context for the Economic Sustainability Plan**

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## Chapter 2: Overview of the People and Economy of the Delta

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### 1 Overview and Key Findings

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This chapter provides an overview of the key demographic and economic conditions and trends in the Sacramento-San Joaquin Delta, including detailed information for both the Primary and Secondary Zones. The chapter is intended to provide baseline information to support the creation of an Economic Sustainability Plan for the Delta.

The analysis focuses primarily on data-driven results and information based largely on government data sources, which are documented throughout. To the extent possible, the findings rely on the most up-to-date and geographically-refined data available, including block-level data from the 2010 Decennial Census. It is important to note that the analysis relies on a variety of disparate data sources with differing geographic reporting areas (see Appendix B). The detailed data and calculations documenting the findings presented in this chapter are also provided (see Appendix B).

This section highlights key socioeconomic indicators for the Primary, Secondary, and Legal Delta. Overall, the data review suggests that the Delta is a relatively diverse, growing, and economically integrated region that in many respects is out-performing the state as a whole. However, within this larger context, the Delta's Primary Zone functions as a distinct sub-region with a demographic and economic profile that differs in many ways from both the region and state. Although most of these differences stem from the more rural and sparsely populated nature of the Primary Zone, some are indicative of a less diversified and underperforming economy. The key indicators underlying these conclusions are summarized below.

- **Population Growth:** While the Legal Delta has experienced relatively robust population growth over the last 20 years, increasing by about 54 percent since 1990 compared to 25 percent statewide, the Primary Zone population has remained essentially unchanged. The impressive growth rate of the Legal Delta is largely attributable to its position on the fringe of large metropolitan areas in Northern California. However, the Primary Zone does not appear to be participating in this regional or statewide growth, in part because it lacks the public infrastructure and services necessary to support robust growth and in part because there are restrictive land use regulations on new development. In particular, the Central and Southern Delta (south of Walnut Grove and including the SR12 corridor east of Rio Vista) has contracted since 2000, with total population falling by approximately 500 people, a decrease of roughly 6.5 percent.
- **Age, Race, and Ethnicity:** While the Legal Delta is made up of a relatively young and racially and ethnically diverse population, the Primary Delta is older and predominantly White and non-Hispanic. In the Legal Delta, approximately 43 percent of residents describe themselves as non-White and approximately 81 percent are younger than 55 years of age, similar to the 39 percent and 79 percent statewide, respectively. In contrast, only about 25 percent of Primary Zone residents describe themselves as non-White and about 62 percent are younger than 55 years of age. The Primary Zone's below-average household size (with about 70 percent of households containing fewer than three people compared to about 54 percent statewide) is consistent with the older age profile, suggesting a relatively high share of households without children. Demographic trends in the larger Legal Delta reflect birth and migration patterns emanating from Northern California's growing urban centers, but these patterns appear to be having less of an impact on the Primary Zone. Since 2000, the

age distribution of the population in the Legal Delta has not changed dramatically, likely because of an influx of younger people in the Secondary Zone. In contrast, the age distribution in the Primary Zone has shifted older, with people age 55 and up accounting for a significantly greater share of the population, up from about 24 percent in 2000 to 38 percent today.

- **Employment:** While the Legal Delta possesses a relatively diversified and stable economy, with no one sector accounting for more than 13 percent of employment, the Primary Zone is a highly resource-driven economy with a heavy reliance on agriculture and, to a lesser degree, recreation. The Legal Delta's four top employment sectors—retail, education, health care, and accommodations and food services—account for about 44 percent of all jobs, with a relatively equal distribution among each. In contrast, agriculture alone makes up about 44 percent of total employment in the Primary Zone.
- **Industry Clusters:** Location quotients were calculated for employment and gross regional product to identify key industry clusters in the Delta. The analysis identified three key industries for the Delta economy in both the Primary and Secondary Zones:
  - Agriculture
  - Transportation, Warehousing, and Utilities
  - Construction, Housing, and Real Estate
- **Export Sectors:** Exports represent a key measure of a region's economic base because they bring new money into a region instead of re-circulating existing income.<sup>4</sup> While the proportion of economic output represented by exports in the Legal Delta is relatively high compared to the state as a whole (33 percent versus 24 percent in California), the Sacramento River Corridor is distinctly export-oriented, with exports making up approximately 64 percent of output.

## 2 The People of the Delta

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The demographic attributes and unique capacities of Delta residents will have important implications for the region's economic development prospects. This section explores the demographic conditions and trends in the Delta, focusing on such factors as population growth, age, education, household characteristics, labor force participation, and commute patterns. The analysis distinguishes between the Delta's Primary and Secondary Zones. A more detailed discussion of these trends for selected Delta Legacy Communities is provided separately.

### 2.1 Demographic Conditions and Trends

#### 2.1.1 Population

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There has been significant population growth within the Legal Delta since 1990, almost entirely attributable to the expanding urban areas contained within the Secondary Zone. Specifically, the Secondary Zone contains an estimated 560,000 residents according to the 2010 Decennial Census, up from about 360,000 in 1990, a 56 percent increase (the state as a whole increased by 25 percent during this period). In contrast, the Census reports roughly 12,000 residents living in the Primary Zone in 2010, about the same number as 20 years ago.<sup>5</sup> Currently, the population within the Primary Delta represents about 2 percent of the Legal Delta's total and this proportion appears to be shrinking.

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<sup>4</sup> In the context of this study, the term "exports" refers to goods and services provided to areas outside of the Delta, rather than to international markets exclusively.

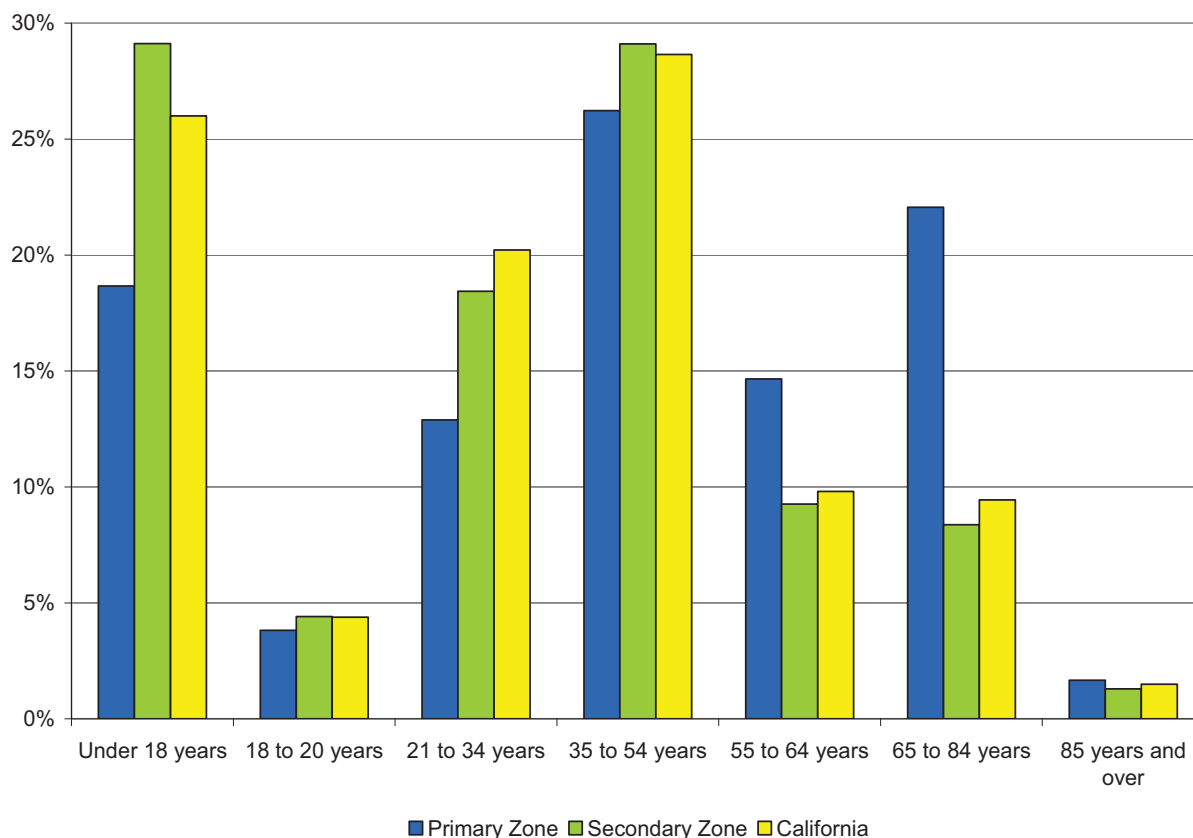
<sup>5</sup> Note that changing Census boundaries limit the precision of block-level trend analysis.

The Primary Zone encompasses about 67 percent of the Legal Delta's total land area. It is a highly rural and sparsely populated area surrounded by relatively fast-growing urban areas in or adjacent to the Secondary Zone.<sup>6</sup> A variety of inter-related factors are preventing growth in the Secondary Zone from spreading to the Primary Zone, most notably regulatory prohibitions, lack of public infrastructure, and economic feasibility. The relatively fast growth in the Secondary Zone is largely attributable to its role in accommodating spill-over growth from large, land-constrained urban centers in the San Francisco, Sacramento, and Stockton metropolitan areas.

### 2.1.2 Age and Household Composition

Overall, the age and household composition of the resident population in the Legal Delta is similar to California as a whole, albeit with slightly younger and larger families. Almost half of the population (47 percent) is in the 21 to 54 year age group, the prime income generating cohort, mirroring the state (49 percent). The Legal Delta has a slightly higher proportion of youth than California as a whole, with about 29 percent below 18 years (compared to 26 percent statewide). In addition, about 72 percent of all households in the Legal Delta contain families (i.e., relatives) and 49 percent contain three or more people, compared to 68 percent and 46 percent, respectively, for the state as a whole.

**Figure 2 Age Distribution in the Delta**



Source: 2005-9 American Community Survey, Census Bureau

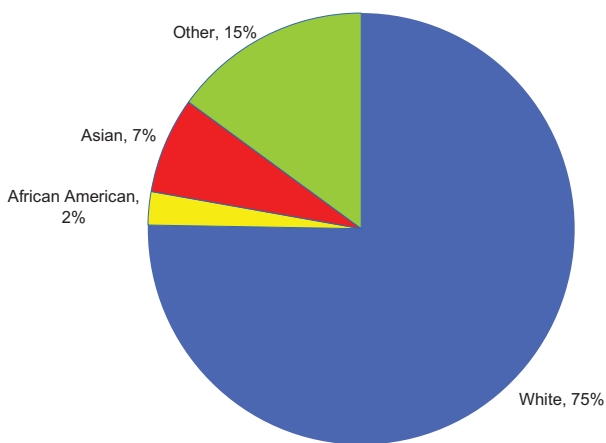
<sup>6</sup> Based on an estimated 491,592 acres in the Primary Zone and 243,798 acres in the Secondary Zone (Framework Study).

The age and household composition of residents in the Primary Zone is indicative of a region populated by older individuals without children living in relatively small households. The Primary Zone population in the 21 to 34 years age group comprises only 13 percent of the total population (compared to 20 percent in California) while population in the 65 to 84 years age group makes up 22 percent of total population (compared to 9 percent in California). Meanwhile, about 70 percent of the households contain two or fewer people, compared to 54 percent statewide. Combined, these data suggest a resident population with lower household consumption (small households without children) and income generation (retirees) than both the Legal Delta and state.

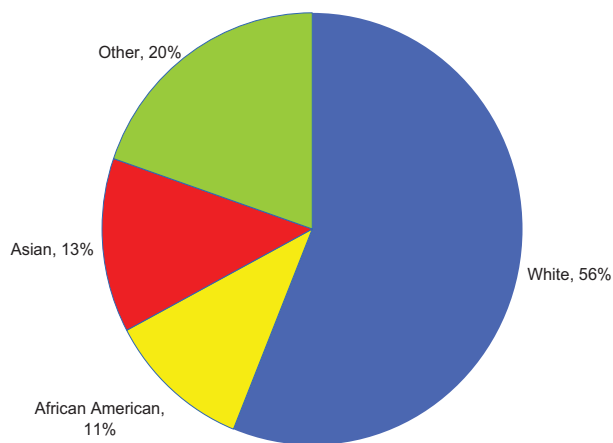
### 2.1.3 Race and Ethnicity

The population of the Primary Zone is generally Caucasian, with residents identifying themselves as White making up approximately 75 percent of the population. About 7 percent of the Primary Zone population reports being of Asian descent. The relatively urbanized Secondary Zone is somewhat more diverse, with greater shares of the population identifying themselves as Asian (13 percent) and African American (11 percent). By comparison, the California population is about 61 percent White, 12 percent Asian, and 6 percent African American.

**Figure 3 Race in the Primary Zone**



**Figure 4 Race in the Secondary Zone**



Source: 2005-9 American Community Survey, Census Bureau

Across all race categories, approximately 26 percent of the Primary Zone population and 30 percent of the Secondary Zone populations report being of Hispanic origin, smaller shares of the total population than in California overall, where Hispanics make up roughly 36 percent of the population.

### 2.1.4 Educational Attainment

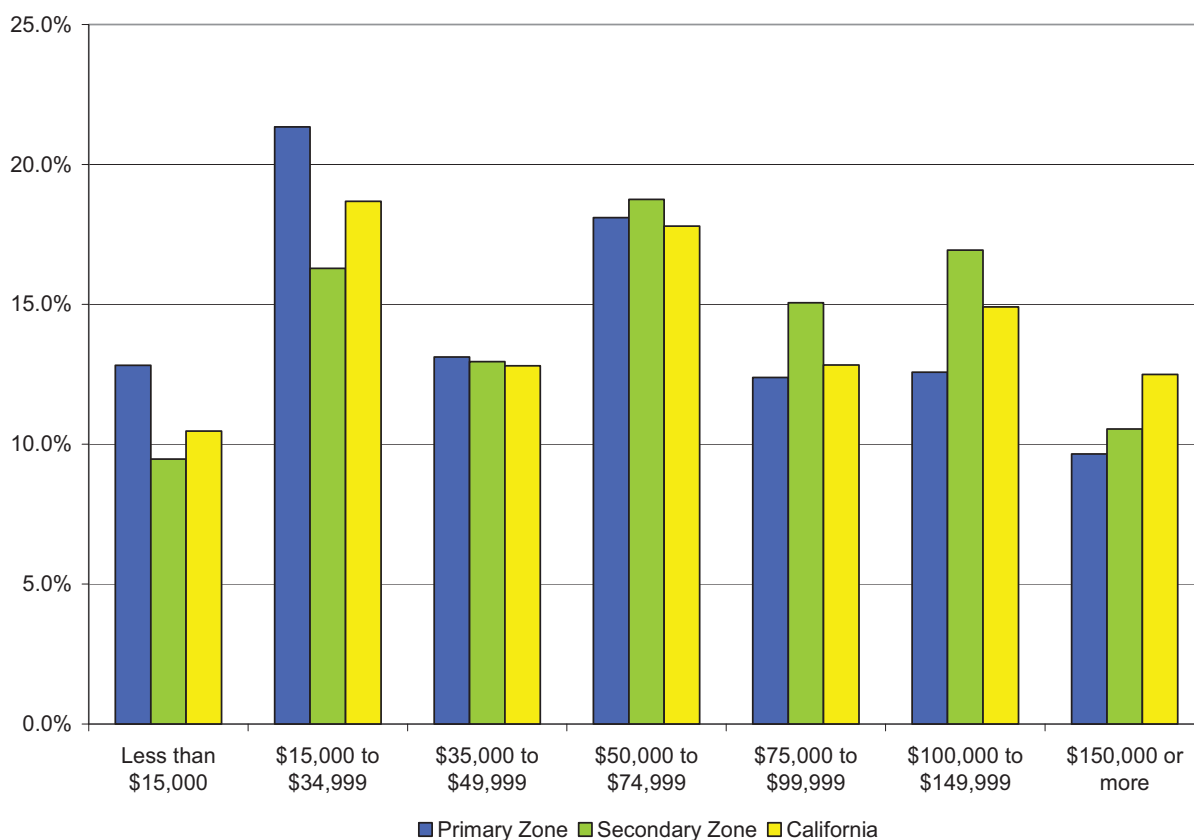
In general the residents of the Legal Delta are well educated compared with Californians as a whole, with several caveats. For example, the Legal Delta has fewer high school drop-outs than the state overall, at 17 percent compared to 20 percent. However, about 32 percent of Legal Delta residents have successfully obtained some form of post-secondary (higher) education

degree, compared to 37 percent statewide. Interestingly, the Primary Zone has slightly higher education levels than the Secondary Zone with 36 percent completing post-secondary training and 9 percent holding a graduate or professional degree (compared to 31 percent and 6 percent, respectively, in the Secondary Zone).

### 2.1.5 Income

The household income distribution in the Primary Zone is generally similar to California overall. While a slightly greater proportion of Primary Zone households have a total household income of less than \$35,000 (34 percent versus 29 percent in California), a similar proportion of Primary Zone households have income between \$35,000 and \$100,000, compared to California overall. A greater share of California's households earn more than \$100,000, explaining the higher average household income in California. Household incomes in the Secondary Zone are more concentrated in the \$50,000 to \$150,000 range, as compared with the Primary Zone and California overall.

**Figure 5 Income Distribution in the Delta**



Source: 2005-9 American Community Survey, Census Bureau

## 2.2 Housing Trends

### 2.2.1 *New Development*

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Despite the lack of population growth, there has been some residential development in the Primary Zone. Between 1990 and 2010, the number of housing units increased by about 10 percent, from approximately 4,500 to nearly 5,000. The discrepancy between population and housing growth generally reflects declining household size, increased vacancies, and second-home construction (e.g., vacation homes). By comparison, the Secondary Zone gained more than 66,000 net new housing units during this same period, an increase of nearly 50 percent, a slightly slower growth rate than population. This trend is consistent with the above-average household size in this region.

### 2.2.2 *Ownership*

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Approximately 71 percent of the occupied housing units in the Primary Zone are inhabited by owners. While this is significantly greater than in California overall, where only about 58 percent of homes are owner-occupied, this is generally consistent with home ownership rates observed in more rural areas, where rental housing is scarce. In the Secondary Zone, which is more urban, owner-occupied housing units make up about 66 percent of occupied housing units.

### 2.2.3 *Foreclosures*

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Given the Secondary Zone's position on the edge of several large metropolitan areas, it was particularly vulnerable to the sub-prime-led foreclosure crisis that disproportionately hit a number of California communities on the urban fringe. Data concerning foreclosures occurring between May 2010 and April 2011, obtained from RealtyTrac, substantiate this trend. These data show that the Secondary Zone has a foreclosure rate of 9.8 percent, compared to only 4.2 percent in the Primary Zone. Also, the foreclosure rate in the Secondary Zone is notably higher than the five-county region (8.5 percent) and the state (5.8 percent).

## 2.3 Labor Force Participation and Commute Patterns

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Only about 54 percent of the Primary Zone population is in the labor force (employed or seeking work), and approximately 24 percent of the zone's residents are above retirement age. The unemployment rate in the Primary Zone (7 percent) is slightly lower than in California (8 percent), according to data from 2005 through 2009. In the Secondary Zone, a greater share of the population is in the workforce (64 percent), which is fairly consistent with California overall. However, unemployment in the Secondary Zone is higher (10 percent) than in the Primary Zone and California, according to data from 2005 through 2009.

It is also interesting to note that the Legal Delta has a low ratio of jobs to workers compared to the Primary Zone. Despite this fact, workers and residents in both the Legal Delta and the Primary Zone have relatively complex commute patterns, which suggest that residents generally work elsewhere. In the Primary Zone, roughly 88 percent of employed residents work outside of the Primary Zone. For example, the employed residents of the Primary Zone commute to Sacramento (6 percent), Stockton (6 percent), Rio Vista (3 percent), and San Francisco (3 percent). The employed residents of the Secondary Zone work in Stockton (14 percent), Sacramento (7 percent), San Francisco (4 percent), Antioch (4 percent), and other locations.



The employed residents of the Primary Zone work primarily in agriculture (12 percent), education (11 percent), construction (10 percent), and health care (8 percent). Of the employed Primary Zone residents, approximately 63 percent are employed by for-profit enterprises, 20 percent are employed by government entities, 10 percent are self-employed, and 7 percent are employed by not-for-profit organizations. The employed residents of the Secondary Zone are less concentrated in agriculture (1.3 percent), construction (9.1 percent), and educational services (7.6 percent) and more concentrated in health care (12.7 percent) and retail trade (12.4 percent).

Together the labor force participation and commute patterns suggest that Primary Zone workers commonly out-commute to jobs in education, construction, and health care, while the in-commuters occupy lower-skilled jobs in agriculture and manufacturing. Despite a healthy ratio of jobs to residents, the Primary Zone serves as a “bedroom community” for professionals commuting to Stockton, Sacramento, and other nearby urban areas.

### 3 Baseline Economic Conditions and Trends in the Delta

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An effective Economic Sustainability Plan for the Delta must be based on a solid understanding of the economic conditions and key drivers. Consequently, to further assess economic development, this analysis evaluates employment, output, and trade flows in the Delta to ascertain economic fundamentals and growth prospects. The analysis draws on a variety of data sources and relies on common economic development tools and metrics, including location quotients and export-orientation analysis.

#### 3.1 Employment by Sector

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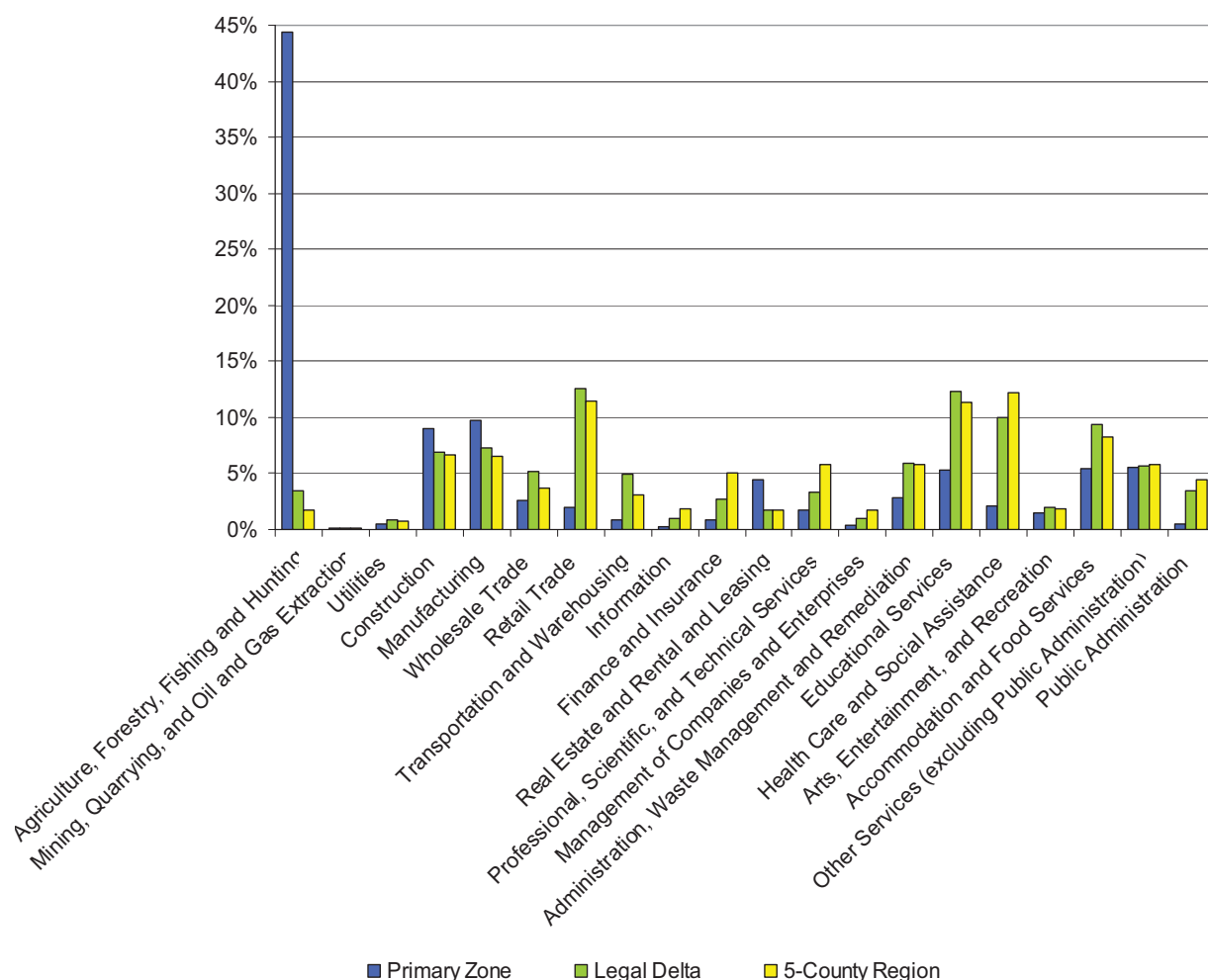
According to data from the Bureau of Economic Analysis, there are 1.826 million jobs in the five-county Delta region (Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties). Overall, nearly 23 percent of employment in the region is categorized as proprietor employment (i.e., self-employed), including nearly 38 percent of farm employment.

The Bureau of Economic Analysis’s comprehensive employment data are unavailable for the Primary Zone of the Delta. However, the U.S. Census Bureau, through its Local Employment Dynamics-Longitudinal Employer-Household Dynamics (LED-LEHD) program, provides data within unique geographies such as the Delta zones but excludes most self-employed workers. Adjusting the LED-LEHD estimate upward to account for the additional share of employment reported by the Bureau of Economic Analysis in the five-county region, this analysis estimates that there are roughly 200,000 jobs in the Legal Delta. In addition, the LED-LEHD program reports approximately 4,360 jobs in the Primary Zone, which suggests total employment of nearly 6,500 jobs (approximately 3 percent of the Legal Delta) after the adjustment for undercounting.

Overall, the Legal Delta appears to have a relatively balanced level of employment across a number of sectors, in sharp contrast to the Primary Zone. Specifically, four sectors, retail (13 percent), education (12 percent), health care and social services (10 percent), and accommodation and food service (9 percent), averaged about 44 percent of total jobs between 2007 and 2009.



**Figure 6 Distribution of Employment by Industry in the Delta Region (2007-9)**



Source: Center for Economic Studies (LED-LEHD), Census Bureau

Employment in the Primary Zone of the Delta is highly concentrated in the agricultural sector, which accounts for over 44 percent of all jobs. Over the seven-year period from 2002 to 2009, agriculture accounted for almost 58 percent of total employment in the region. Other important industries include manufacturing and construction, which account for 10 and 9 percent of Primary Zone jobs, respectively. Together, these three industries comprised more than 60 percent of Primary Zone jobs. Recreation-related industries, which generally include the retail; arts, entertainment, and recreation; and accommodation and food services sectors, account for roughly 9 percent of jobs in the Primary Zone.

### 3.2 Location Quotient Analysis

Location quotient analysis is a method commonly used to identify strengths in a local economy. The technique identifies concentrations in a local economy relative to a larger reference economy. In this analysis, the location quotient compares distributions of employment by industry to determine if there are industries that comprise a greater proportion of employment in the local economy relative to the state economy. Specifically, this analysis compares the employment composition of the Primary Zone and Legal Delta to employment composition in California.

In the Primary Zone, the location quotient analysis points to relatively high employment concentrations in the following sectors:

- Agriculture, forestry, fishing, and hunting<sup>7</sup>
- Real estate and rental and leasing<sup>8</sup>
- Construction<sup>9</sup>
- Mining, quarrying, and oil and gas extraction<sup>10</sup>
- Manufacturing<sup>11</sup>

In the Legal Delta, the location quotient analysis points to relatively high employment concentrations in the following sectors:

- Transportation and warehousing<sup>12</sup>
- Agriculture, forestry, fishing, and hunting
- Construction
- Educational services<sup>13</sup>
- Utilities<sup>14</sup>

Figure 7 presents location quotients for employment in the Delta versus the State of California. A location quotient of 1.0 indicates that employment in the local area is the same share of total employment as in the state as a whole. If the location quotient is more than 1.0, local employment in the sector is concentrated compared with the state. As shown, the location quotient for agricultural employment in the Primary Zone is nearly 20, indicating extraordinarily high employment in this sector relative to total employment, as compared with the state.

Employment in the real estate sector is also relatively concentrated in the Primary Zone. Real Estate is closely tied to recreation, with several visitor-serving businesses in the Delta categorized as real estate entities. Real estate businesses in the Primary Zone range from marinas to self-storage facilities to independent real estate brokers. While this industry

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<sup>7</sup> The agriculture, forestry, fishing and hunting sector comprises establishments primarily engaged in growing crops, raising animals, harvesting timber, and harvesting fish and other animals from a farm, ranch, or their natural habitats. (BLS)

<sup>8</sup> The real estate and rental and leasing sector comprises establishments primarily engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets, and establishments providing related services. (BLS)

<sup>9</sup> The construction sector comprises establishments primarily engaged in the construction of buildings or engineering projects (e.g., highways and utility systems). (BLS)

<sup>10</sup> The mining sector comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas. (BLS)

<sup>11</sup> The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. (BLS)

<sup>12</sup> The transportation and warehousing sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation. (BLS)

<sup>13</sup> The educational services sector comprises establishments that provide instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. (BLS)

<sup>14</sup> The utilities sector comprises establishments engaged in the provision of the following utility services: electric power, natural gas, steam supply, water supply, and sewage removal. (BLS)

comprises only about 4 percent of jobs in the Primary Zone, that is more than two times the industry's share of employment in the state.

**Figure 7 Location Quotient for Employment in the Delta Versus California**



Source: Center for Economic Studies (LED-LEHD), Census Bureau

Construction businesses also cluster in the Primary Zone. Firms in this industry are primarily engaged in residential construction. Construction firms in the Primary Zone are frequently found at the urban-rural fringe, where large parcels of land are available proximate to dense populations. Employment in this sector makes up about 9 percent of employment in the Primary Zone, versus about 5 percent of employment in California.

While mining, quarrying, and oil and gas extraction supports a relatively low level of employment in the Delta, this sector's share of total employment is greater in Primary Zone than statewide. With a location quotient of 1.1, employment in the mining, quarrying, and oil and gas extraction sector is notable, likely due to the natural gas production, pipelines, and storage in the area.

Manufacturing, with its close ties to agriculture and recreation, is also an important employer in the Primary Zone. The manufacturing sector includes businesses with operations that range from agricultural implement fabrication to wine production to boat construction.

An additional location quotient analysis of the gross regional product (GRP) in the Legal Delta compared to the state reveals the importance of the utilities sector in the Delta.<sup>15</sup> While employment in this industry is somewhat concentrated in this sector in the Legal Delta, it is particularly notable that utilities account for nearly 5 percent of the gross regional product of the Legal Delta, versus only about 2 percent of the California economy. Of the 21 sectors analyzed for GRP location quotients, the top five industry clusters in the Legal Delta are: Utilities, Transportation and Warehousing, Imputed Rental Value for Owner-Occupied Housing, Construction, and Agriculture. Given the focus on the recreation economy in Delta planning efforts, it is notable that the Arts, Entertainment and Recreation sector's location quotient of 0.31 is in a three-way tie for the last place with the Information and Management sectors.

Considering all the various measures of industry concentration, there are three critical clusters for the Delta economy in both the Primary and Secondary Zones:

- Agriculture
- Transportation, Warehousing, and Utilities
- Construction, Housing, and Real Estate

All three of these critical areas could be significantly affected by Delta planning efforts. Given the importance of agriculture in the Primary Zone, the Economic Sustainability Plan includes a focused analysis of this sector in Chapter 7. The Delta recreation economy is addressed by Chapter 8, because of its relationship to the Delta environment. Utilities and other infrastructure-related activities are discussed in Chapter 9.

### 3.3 Export Orientation

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IMPLAN, a regional economic model that describes economic relationships between industries, is a valuable tool for evaluation of trade and exports in the Delta. This analysis relies on data from IMPLAN to consider the degree to which specific Delta industries are export-oriented, thereby bringing new money into the regional economy. A key measure of a region's economic base is the amount or percentage of economic activity, services, or sales that are exported outside of the local area. Exports from the Delta bring new dollars into an economy rather than re-circulating existing dollars.

IMPLAN data are available by U.S. Postal Service ZIP codes, which are not perfectly consistent with Delta boundaries, particularly in the Primary Zone. The Economic Sustainability Plan considers two geographies comprised of ZIP codes, including the ZIP codes that best represent the economy of the Legal Delta and ZIP codes in the Sacramento River Corridor (see Appendix B). Based on IMPLAN data for these geographies, exports represent about 33 percent of total output in the Legal Delta and 64 percent in the Sacramento River Corridor, compared to 24 percent in the state as a whole. These data suggest that economic output in the Delta is heavily biased towards producing goods and services for consumption elsewhere. Not surprisingly, agriculture is a highly export-oriented sector with exports accounting for 83 percent of total output in this sector in the Sacramento River Corridor. Utilities and manufacturing are also significant export-driven industries in the Delta.

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<sup>15</sup> Location quotient analysis of gross regional product relies on data from IMPLAN (see Appendix B).